

The Western Journal of Medicine

SINCE 1902

ISSN 0093-0415

PO BOX 7602 • SAN FRANCISCO, CALIFORNIA 94120-7602 • TELEPHONE (415) 863-5522

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Official Journal of the Arizona Medical Association, the California Medical Association, the Idaho Medical Association, the Montana Medical Association, the Nevada State Medical Association, the New Mexico Medical Society, the Utah State Medical Association, the Washington State Medical Association and the Wyoming Medical Society.

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The subscription price per year is \$30 in the United States and Canada (US funds); \$50 in all other countries. Single copies are \$4.50 (which includes postage and handling). Address all subscription communications to:

THE WESTERN JOURNAL OF MEDICINE Circulation, PO Box 7602
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Allow six weeks for subscriptions to begin. Past issues must be bought individually. So long as reserve stocks are available, missing issue requests from subscribers are honored for up to six months after the issue date. Thereafter, the single copy rate of \$4.50 is applicable for each issue available.

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SUBMITTING MANUSCRIPTS

Manuscripts for consideration should be sent to the editor, Malcolm S. M. Watts, MD, PO Box 7602, San Francisco, CA 94120-7602.

"Information for Authors"—A complete guide to manuscript submission and *WJM* style appears in the January and July issues. Manuscripts may be prepared in accordance with the "Uniform Requirements for Manuscripts Submitted to Biomedical Journals" (*British Medical Journal*, June 12, 1982; *Annals of Internal Medicine*, June 1982).

Author Responsibility—Authors are responsible for all statements, conclusions and methods of presenting subjects. Articles are accepted on condition that they are contributed solely to this journal.

Manuscripts—Ordinarily manuscripts should not exceed 3,000 words (less than 15 typed double-spaced pages). The *original* manuscript and two copies should be submitted, typed double-spaced throughout. If photographic illustrations are desired, three sets of clear, unmounted black and white glossy prints should be supplied. For line drawings, original artwork or glossy prints are acceptable. Tables should be typed on separate sheets of paper.

Clinical Investigation—Papers that authors wish considered for the Clinical Investigation section should be so designated in the transmittal letter. Such papers should describe experimental work in humans that extensively and prospectively examines scientific hypotheses relating to disease.

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In mild to moderate hypertension THE FIRST ONCE DAILY CALCIUM CHANNEL BLOCKER

Brief Summary

ISOPTIN® SR (verapamil HCl/Knoll) 240 mg scored, sustained-release tablets

CONTRAINDICATIONS: 1) Severe left ventricular dysfunction (see WARNINGS), 2) Hypotension (less than 90 mmHg systolic pressure) or cardiogenic shock, 3) Sick sinus syndrome or 2nd or 3rd degree AV block (except in patients with a functioning artificial ventricular pacemaker).

WARNINGS: **Heart Failure:** ISOPTIN should be avoided in patients with severe left ventricular dysfunction (see DRUG INTERACTIONS). Patients with milder ventricular dysfunction should, if possible, be controlled before verapamil treatment. Hypotension: ISOPTIN (verapamil HCl) may produce occasional symptomatic hypotension. Elevated Liver Enzymes: Elevations of transaminases with and without concomitant elevations in alkaline phosphatase and bilirubin have been reported. Periodic monitoring of liver function in patients receiving verapamil is therefore prudent. Accessory Bypass Tract (Wolff-Parkinson-White): Patients with paroxysmal and/or chronic atrial flutter or atrial fibrillation and a coexisting accessory AV pathway have developed increased antegrade conduction across the accessory pathway producing a very rapid ventricular response or ventricular fibrillation after receiving intravenous verapamil. While this has not been reported with oral verapamil, it should be considered a potential risk. Treatment is usually D.C.-cardioversion. Atrioventricular Block: The effect of verapamil on AV conduction and the SA node may cause asymptomatic 1st degree AV block and transient bradycardia. Higher degrees of AV block, while infrequent (0.8%), may require a reduction in dosage or, in rare instances, discontinuation of verapamil HCl. Patients with Hypertrophic Cardiomyopathy (HSS): Although verapamil has been used in the therapy of patients with HSS, severe cardiovascular decompensation and death have been noted in this patient population.

PRECAUTIONS: **Impaired Hepatic or Renal Function:** Verapamil is highly metabolized by the liver with about 70% of an administered dose excreted in the urine. In patients with impaired hepatic or renal function verapamil should be administered cautiously and the patients monitored for abnormal prolongation of the PR interval or other signs of excessive pharmacological effects (see OVERDOSAGE).

Drug Interactions: Beta Blockers: Concomitant use of ISOPTIN and oral beta-adrenergic blocking agents may be beneficial in certain patients with chronic stable angina or hypertension, but available information is not sufficient to predict with confidence the effects of concurrent treatment in patients with left ventricular dysfunction or cardiac conduction abnormalities. Digitalis: Clinical use of verapamil in digitalized patients has shown the combination to be well tolerated if digoxin doses are properly adjusted. However, chronic verapamil treatment increases serum digoxin levels by 50 to 75% during the first week of therapy and this can result in digitalis toxicity. Upon discontinuation of ISOPTIN (verapamil HCl), the patient should be reassessed to avoid underdigitalization. Antihypertensive Agents: Verapamil administered concomitantly with oral antihypertensive agents (e.g., vasodilators, angiotensin-converting enzyme inhibitors, diuretics, beta blockers, prazosin) will usually have an additive effect on lowering blood pressure. Patients receiving these combinations should be appropriately monitored. Disopyramide: Disopyramide should not be administered within 48 hours before or 24 hours after verapamil administration. Quinidine: In patients with hypertrophic cardiomyopathy (HSS), concomitant use of verapamil and quinidine resulted in significant hypotension. There has been a report of increased quinidine levels during verapamil therapy. Nitrates: The pharmacologic profile of verapamil and nitrates as well as clinical experience suggest beneficial interactions. Cimetidine: Two clinical trials have shown a lack of significant verapamil interaction with cimetidine. A third study showed cimetidine reduced verapamil clearance and increased elimination to 1/2. Anesthetic Agents: Verapamil may potentiate the activity of neuromuscular blocking agents and inhalation anesthetics. Carbamazepine: Verapamil may increase carbamazepine concentrations during combined therapy. Rifampin: Therapy with rifampin may markedly reduce oral verapamil bioavailability. Lithium: Verapamil may lower lithium levels in patient on chronic oral lithium therapy. Carcinogenesis, Mutagenesis, Impairment of Fertility: There was no evidence of a carcinogenic potential of verapamil administered to rats for two years. Verapamil was not mutagenic in the Ames test. Studies in female rats did not show impaired fertility. Effects on male fertility have not been determined. Pregnancy (Category C): There are no adequate and well-controlled studies in pregnant women. ISOPTIN crosses the placental barrier and can be detected in umbilical vein blood at delivery. This drug should be used during pregnancy, labor, and delivery, only if clearly needed. Nursing Mothers: ISOPTIN is excreted in human milk, therefore, nursing should be discontinued while verapamil is administered. Pediatric Use: Safety and efficacy of ISOPTIN in children below the age of 18 years have not been established.

ADVERSE REACTIONS: Constipation 8.4%, dizziness 3.5%, nausea 2.7%, hypotension 2.5%, edema 2.1%, headache 1.9%, CHF/pulmonary edema 1.8%, fatigue 1.7%, bradycardia 1.4%, 3° AV block 0.8%, flushing 0.8%, elevated liver enzymes (see WARNINGS). The following reactions, reported in less than 1.0% of patients, occurred under conditions (open trials, marketing experience) where a causal relationship is uncertain; they are mentioned to alert the physician to a possible relationship: angina pectoris, arthralgia and rash, AV block, blurred vision, cerebrovascular accident, chest pain, claudication, confusion, diarrhea, dry mouth, dyspnea, echymosis or bruising, equilibrium disorders, exanthema, gastrointestinal distress, gingival hyperplasia, gynecomastia, hair loss, hyperkeratosis, impotence, increased urination, insomnia, macules, muscle cramps, myocardial infarction, palpitations, paresthesia, psychotic symptoms, purpura (vasculitis), shakiness, somnolence, spotty menstruation, sweating, syncope, urticaria. Treatment of Acute Cardiovascular Adverse Reactions: Whenever severe hypotension or complete AV block occur following oral administration of verapamil, the appropriate emergency measures should be applied immediately, e.g., intravenously administered isoproterenol HCl, levalterenol bitartrate, atropine (all in the usual doses), or calcium gluconate (10% solution). If further support is necessary, inotropic agents (dopamine or dobutamine) may be administered. Actual treatment and dosage should depend on the severity and the clinical situation and the judgment and experience of the treating physician.

OVERDOSAGE: Treatment of overdosage should be supportive. Beta-adrenergic stimulation or parenteral administration of calcium solutions may increase calcium ion flux across the slow channel, and have been used effectively in treatment of deliberate overdosage with verapamil. Clinically significant hypotensive reactions or fixed high degree AV block should be treated with vasopressor agents or cardiac pacing, respectively. Asystole should be handled by the usual measures including cardiopulmonary resuscitation.

Knoll Pharmaceuticals
A Unit of BASF K&F Corporation
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2474/11/86

Printed in U.S.A.

Books Received

Books received by THE WESTERN JOURNAL OF MEDICINE are acknowledged in this column. Selections will be made for more extensive review in the interest of readers as space permits.

THE ANESTHESIA MACHINE—Clayton Petty, MD, Professor of Anesthesiology, University of Utah School of Medicine, Salt Lake City. Churchill Livingstone Inc, 1560 Broadway, New York, NY 10036, 1986. 225 pages, \$29.50.

ATLAS OF HEAD AND NECK SURGERY—Carl E. Silver, MD, Professor, Department of Surgery, Albert Einstein College of Medicine, and Chief, Head and Neck Service, Montefiore Medical Center and Albert Einstein College of Medicine, Bronx, New York. Churchill Livingstone Inc, 1560 Broadway, New York, NY 10036, 1986. 317 pages, \$98.

BIostatISTICS IN CLINICAL MEDICINE—Joseph A. Ingelfinger, MD, Assistant Professor of Medicine, Boston University School of Medicine, and Associate Director, Section of General Internal Medicine, Boston City Hospital; Frederick Mosteller, PhD, Roger I. Lee Professor of Mathematical Statistics and Chairman, Department of Health Policy and Management, School of Public Health, Harvard University, Boston; Lawrence A. Thibodeau, PhD, Senior Manager, Price Waterhouse, New York, and James H. Ware, PhD, Professor of Biostatistics, School of Public Health, Harvard University, Boston. MacMillan Publishing Co, 1987. 330 pages, price not given (paperback).

CARDIOVASCULAR EMERGENCIES—Volume 9 in Clinics in Emergency Medicine—Edited by Joseph P. Ornato, MD, Associate Professor of Internal Medicine (Cardiology) and Chief, Section of Emergency Medicine of the Department of Internal Medicine, Medical College of Virginia, Virginia Commonwealth University, Richmond. Churchill Livingstone Inc, 1560 Broadway, New York, NY 10036, 1986. 252 pages, \$29.

CARDIOVASCULAR PROBLEMS IN PEDIATRIC CRITICAL CARE—In Clinics in Critical Care Medicine series—Edited by David B. Swedlow, MD, Assistant Professor of Anesthesia and Pediatrics, University of Pennsylvania School of Medicine, and Senior Anesthesiologist, Department of Anesthesia and Critical Care, Children's Hospital of Philadelphia, and Russell C. Raphael, MD, Associate Professor of Anesthesia and Pediatrics, University of Pennsylvania School of Medicine, and Senior Anesthesiologist and Director, Pediatric Intensive Care Complex, Department of Anesthesia and Critical Care, Children's Hospital of Philadelphia. Churchill Livingstone Inc, 1560 Broadway, New York, NY 10036, 1986. 302 pages, \$42.

CLINICAL GENETICS HANDBOOK—National Genetics Foundation Inc; Ruth Y. Berini, Executive Editor, Eva Kahn, Editor. Medical Economics Books, Oradell, NJ 07649, 1987. 354 pages, price not given (paperback).

COMMON SPORTS INJURIES IN YOUNGSTERS—Richard B. Birrer, MD, MPH, Associate Professor of Family Practice, State University of New York Health Sciences Center at Brooklyn, and David B. Brecher, MD, Attending Physician, Department of Family Medicine, Mease Clinic Countryside, Safety Harbor, Florida. Medical Economics Books, Oradell, NY 07649, 1987. 139 pages, price not given (paperback).

COMPUTED TOMOGRAPHY OF THE SPINE—DIAGNOSTIC EXERCISES—Robert Kricun, MD, Department of Radiology, Lehigh Valley Hospital Center, Allentown, Pennsylvania, and Clinical Assistant Professor, Department of Radiology, Hospital University of Pennsylvania, Philadelphia, and Morrie E. Kricun, MD, Associate Professor, Department of Radiology, Orthopedic Radiology Section, Hospital University of Pennsylvania, Philadelphia. Aspen Publishers, Inc, 1600 Research Blvd, Rockville, MD 20850, 1987. 286 pages, \$56.

CONTINUING MEDICAL EDUCATION—A PRIMER—Edited by Adrienne B. Rosof, Coordinator for Continuing Medical Education, Suffolk County Academy of Medicine, Hap-pauge, NY, and William C. Felch, MD, Executive Vice President, Alliance for Continuing Medical Education (ACME). Praeger Publishers, 521 Fifth Ave, New York, NY 10175, 1986. 206 pages, price not given.

CONTROVERSIES IN ULTRASOUND—Volume 20 in Clinics in Diagnostic Ultrasound—Edited by John P. McGahan, MD, Associate Professor of Radiology and Chief, Section of Ultrasound, University of California, Davis, School of Medicine. Churchill Livingstone Inc, 1560 Broadway, New York, NY 10036, 1986. 360 pages, \$45.

ELECTRODIAGNOSIS IN CLINICAL NEUROLOGY—Second Edition—Edited by Michael J. Aminoff, MD, Professor of Neurology, University of California, San Francisco, School of Medicine; Director, Clinical Neurophysiology Laboratories, and Attending Physician, University of California Medical Center, San Francisco. Churchill Livingstone Inc, 1560 Broadway, New York, NY 10036, 1986. 736 pages, \$79.

EMERGENCIES IN OTOLARYNGOLOGY—Edited by James Y. Suen, MD, Professor and Chairman, Department of Otolaryngology and Maxillofacial Surgery, University of Arkansas College of Medicine, and Stephen J. Wetmore, MD, Associate Professor and Vice Chairman, Department of Otolaryngology and Maxillofacial Surgery, University of Arkansas College of Medicine, and Chief of Otolaryngology, John L. McClellan Memorial Veterans Administration Medical Center, Little Rock. Churchill Livingstone Inc, 1560 Broadway, New York, NY 10036, 1986. 250 pages, \$30 (paperback).

THE HUMAN PLACENTA—CLINICAL PERSPECTIVES—Edited by J. Patrick Lavery, MD, Associate Professor, Department of Obstetrics and Gynecology, and Director, Division of Maternal-Fetal Medicine, University of Louisville School of Medicine, Louisville, Kentucky. Aspen Publishers, Inc, 1600 Research Blvd, Rockville, MD 20850, 1987. 279 pages, \$59.

HYPERCHOLESTEROLEMIA AND ATHEROSCLEROSIS—PATHOGENESIS AND PREVENTION—Volume 3 in Contemporary Issues in Endocrinology and Metabolism—Edited by Daniel Steinberg, MD, PhD, Professor of Medicine, Department of Medicine, and Director, Specialized Center of Research on Arteriosclerosis, and Jerrold M. Olefsky, MD, Professor of Medicine, Department of Medicine, and Head, Division of Endocrinology and Metabolism, University of California, San Diego, School of Medicine, La Jolla. Churchill Livingstone Inc, 1560 Broadway, New York, NY 10036, 1986. 256 pages, \$36.

(Continued on Page 516)

Continuing Medical Education

ARIZONA • CALIFORNIA, HAWAII, NEVADA • IDAHO • MONTANA • NEW MEXICO • UTAH • WASHINGTON • WYOMING

ARIZONA

The following list of continuing medical education programs in Arizona is compiled by the Arizona Medical Association. All courses listed have been certified as meeting the criteria for Category I of the ArMA CME Certificate and the AMA Physicians Recognition Award. To list Category I continuing medical education programs, please send information to Arizona Medical Association, 810 West Bethany Home Road, Phoenix, AZ 85013; or phone (602) 246-8901.

Brochures and registration forms are available from the contact person or organization sponsoring the program.

April 22—**Current Perspectives: Wellness.** Arizona Medical Association, Phoenix. Wed. Contact: ArMA.

April 23—**Current Perspectives: Wellness.** VA Medical Center, Prescott. Thurs. Contact: ArMA.

April 24—**Clinical Aspect of Aging.** Fri. Contact: Dr Stonefeld, (602) 230-3479.

May 9-10—**Pathology of AIDS.** Loews Ventana Canyon Resort, Tucson. Sat-Sun. Contact: Beverly Richter for Arizona Society of Pathologists, (602) 246-8901.

June 4—**Arizona Medical Association Annual Scientific Session.** The Pointe at South Mountain, Phoenix. Thurs. Contact: ArMA.

June 12-14—**Pediatrics in the Red Rocks—10th Annual Summer Pediatrics Conference.** Poco Diablo Resort, Sedona. Fri-Sun. Contact: U of A.

CONTACT INFORMATION

ArMA—Contact: Arizona Medical Association, 810 W Bethany Home Rd, Phoenix, AZ 85013. (602) 246-8901.

U of A—Contact: University of Arizona College of Medicine, Arizona Health Sciences Center, Tucson, AZ 85724. (602) 626-6707.

CALIFORNIA, HAWAII AND NEVADA

This listing of continuing education programs in California, Hawaii and Nevada is supplied by the Committee on Continuing Medical Education of the California Medical Association. All courses and meetings listed have been approved for Category I credit toward the CMA Certificate in Continuing Medical Education. To have accredited courses listed here, please send information at least two months in advance to Department of Continuing Medical Education, California Medical Association, PO Box 7690, San Francisco 94120-7690; or phone (415) 863-5522. For a list of organizations approved for Category I credit toward the CMA Certificate in Continuing Medical Education or for more information on accreditation or certification, please write to the above address.

ANESTHESIOLOGY

April 26-May 1—**California Society of Anesthesiologists Hawaiian Seminar.** Sheraton Kauai Hotel, Poipu Beach, Hawaii. Sun-Fri. 21 hrs. \$375. Contact: Linda P. Londerville, CSA, 100 S Ellsworth Ave, Ste 806, San Mateo 94401. (415) 348-1407.

May 1-3—**Clinical Neuromuscular Pharmacology—1987.** Anesthesiology Educational Foundation and UCLA at Palm Springs. Fri-Sun. 15 hrs. Contact: Anesthesiology Educational Foundation, PO Box 24230, Federal Bldg, Los Angeles 90024. (213) 825-0736.

June 25-28—**California Society of Anesthesiologists Annual Meeting.** Hotel Inter-Continental, San Diego. Thurs-Sun. 16 hrs. \$225. Contact: Linda P. Londerville, 100 S Ellsworth Ave, Ste 806, San Mateo 94401. (415) 348-1407.

August 23-28—**California Society of Anesthesiologists Hawaiian Seminar.** Sheraton Royal Waikoloa Hotel, The Big Island, Hawaii. Sun-Fri. 20 hrs. \$375. Contact: Linda P. Londerville, 100 S Ellsworth Ave, Ste 806, San Mateo 94401. (415) 348-1407.

September 12-13—**Case Conference on Clinical Anesthesiology.** California Society of Anesthesiologists at High Sierra Hotel, Lake Tahoe, Nevada. Sat-Sun. 9 hrs. \$160. Contact: California Society of Anesthesiologists, 100 S Ellsworth Ave, Ste 806, San Mateo 94401. (415) 348-1407.

CANCER

May 1—**1 Day Colon Cancer Screening and Flexible Sigmoidoscopy Workshop.** Continuing Medical Education Associates at Vacation Village Resort, San Diego. Fri. \$175. Contact: J. Shiller, CMEA, PO Box 84296, San Diego 92138. (619) 223-2997.

May 3—**1 Day Colon Cancer Screening and Flexible Sigmoidoscopy Workshop.** Continuing Medical Education Associates at Holiday Inn Union Square, San Francisco. Sun. \$175. Contact: J. Shiller, CMEA, PO Box 84296, San Diego 92138. (619) 223-2997.

KEY TO ABBREVIATIONS

- CMA: California Medical Association
Contact: Continuing Medical Education, California Medical Association, PO Box 7690, San Francisco 94120-7690. (415) 863-5522.
- DREW: Charles R. Drew Postgraduate Medical School
Contact: Herbert M. Thomas, MD, MPH, Director of CME, Office of Continuing Education, Charles R. Drew Postgraduate Medical School, 1621 East 120th Street, Los Angeles 90059. (213) 603-3183.
- LLU: Loma Linda University
Contact: Varner J. Johns, Jr, MD, Associate Dean for Continuing Medical Education, Loma Linda University School of Medicine, Loma Linda 92354. (714) 796-7311, ext 2400.
- PMC: Pacific Medical Center
Contact: Continuing Education, Pacific Medical Center, PO Box 7999, San Francisco 94120. (415) 563-4321, ext 2761.
- STAN: Stanford University
Contact: Edward Rubenstein, MD, Associate Dean for Postgraduate Education, Medical School Office Building, Suite X-365, Stanford 94305-6114. (415) 723-5594.
- UCD: University of California, Davis
Contact: Ruth Feryok, Director, Office of Continuing Medical Education, University of California, Davis, School of Medicine, 2701 Stockton Boulevard, Sacramento 95817. (916) 453-5390.
- UCI: University of California, Irvine
Contact: Melvin I. Marks, MD, Assistant Dean, University of California, Irvine, California College of Medicine, c/o UCI/CME Program, Memorial Medical Center, 2801 Atlantic Avenue, Long Beach 90801-1428. (213) 595-3811, or (714) 856-5414, UCI Extension.
- UCLA: University of California, Los Angeles
Contact: Martin D. Shickman, MD, Director, Continuing Education in Medicine and the Health Sciences, PO Box 24902, UCLA, Los Angeles 90024. (213) 825-7241.
- UCSD: University of California, San Diego
Contact: Office of Continuing Medical Education, University of California, San Diego, School of Medicine (M-017), La Jolla 92093. (619) 534-3713.
- UCSF: University of California, San Francisco
Contact: Robert Maggio, Administrative Director, Extended Programs in Medical Education, School of Medicine, University of California, San Francisco 94143. (415) 476-4251.
- USC: University of Southern California
Contact: Phil R. Manning, MD, Associate Dean, Postgraduate Division, University of Southern California School of Medicine, 1975 Zonal Ave. KAM314, Los Angeles 90033. (213) 224-7051.

(Continued on Page 428)

XANAX® Tablets (alprazolam) ©

CONTRAINDICATIONS

Patients with sensitivity to this drug or other benzodiazepines and in acute narrow angle glaucoma.

WARNINGS

Not of value in psychotic patients. Caution patients against hazardous occupations requiring complete mental alertness and about the simultaneous ingestion of alcohol and other CNS depressant drugs.

Benzodiazepines can cause fetal harm in pregnant women. Warn patients of the potential hazard to the fetus. Avoid during the first trimester.

PRECAUTIONS

General: The dosage of XANAX Tablets should be reduced or withdrawn gradually, since withdrawal seizures have been reported upon abrupt withdrawal. If XANAX is combined with other psychotropics or anticonvulsant drugs, consider drug potentiation (see Drug Interaction section). Exercise the usual precautions regarding size of the prescription for depressed or suicidal patients. In elderly and debilitated patients, use the lowest possible dosage (see Dosage and Administration). Observe the usual precautions in treating patients with impaired renal or hepatic function.

Information for Patients: Alert patients about: (a) consumption of alcohol and drugs, (b) possible fetal abnormalities, (c) operating machinery or driving, (d) not increasing dose of the drug due to risk of dependence, (e) not stopping the drug abruptly. **Laboratory Tests:** Not ordinarily required in otherwise healthy patients. **Drug Interactions:** Additive CNS depressant effects with other psychotropics, anticonvulsants, antihistamines, ethanol and other CNS depressants. Pharmacokinetic interactions with other drugs, e.g., cimetidine, have been reported. **Drug/Laboratory Test Interactions:** No consistent pattern for a drug or test. **Carcinogenesis, Mutagenesis, Impairment of Fertility:** No carcinogenic potential or impairment of fertility in rats. **Pregnancy:** See Warnings. **Nonteratogenic Effects:** The child born of a mother on benzodiazepines may be at some risk for withdrawal symptoms and neonatal flaccidity. **Labor and Delivery:** No established use. **Nursing Mothers:** Benzodiazepines are excreted in human milk. Women on XANAX should not nurse. **Pediatric Use:** Safety and effectiveness in children below the age of 18 have not been established.

ADVERSE REACTIONS

Side effects are generally observed at the beginning of therapy and usually disappear with continued medication. In the usual patient, the most frequent side effects are likely to be an extension of the pharmacologic activity of XANAX, e.g., drowsiness or lightheadedness.

Central nervous system: Drowsiness, lightheadedness, depression, headache, confusion, insomnia, nervousness, syncope, dizziness, akathisia, and tiredness/sleepiness. **Gastrointestinal:** Dry mouth, constipation, diarrhea, nausea/vomiting, and increased salivation. **Cardiovascular:** Tachycardia/palpitations, and hypotension. **Sensory:** Blurred vision. **Musculoskeletal:** Rigidity and tremor. **Cutaneous:** Dermatitis/allergy. **Other side effects:** Nasal congestion, weight gain, and weight loss. Withdrawal seizures have been reported upon rapid decrease or abrupt discontinuation of XANAX. (See Precautions.)

In addition, the following adverse events have been reported with the use of benzodiazepines: dystonia, irritability, concentration difficulties, anorexia, transient amnesia or memory impairment, loss of coordination, fatigue, sedation, slurred speech, jaundice, musculoskeletal weakness, pruritus, diplopia, dysarthria, changes in libido, menstrual irregularities, incontinence and urinary retention. Paradoxical reactions such as stimulation, agitation, increased muscle spasticity, sleep disturbances, and hallucinations may occur. Should these occur, discontinue the drug.

During prolonged treatment, periodic blood counts, urinalysis, and blood chemistry analysis are advisable. Minor EEG changes, of unknown significance, have been observed.

DRUG ABUSE AND DEPENDENCE

Physical and Psychological Dependence: Withdrawal symptoms have occurred following abrupt discontinuance of benzodiazepines. Withdrawal seizures have occurred upon rapid decrease or abrupt discontinuation of therapy. In all patients, dosage should be gradually tapered under close supervision. Patients with a history of seizures or epilepsy should not be abruptly withdrawn from XANAX. Addiction-prone individuals should be under careful surveillance. **Controlled Substance Class:** XANAX is a controlled substance and has been assigned to schedule IV.

OVERDOSAGE

Manifestations include somnolence, confusion, impaired coordination, diminished reflexes and coma. No delayed reactions have been reported.

DOSAGE AND ADMINISTRATION

Dosage should be individualized.

The usual starting dose is 0.25 to 0.5 mg, t.i.d. Maximum total daily dose is 4 mg. In the elderly or debilitated, the usual starting dose is 0.25 mg, two or three times daily. Reduce dosage gradually when terminating therapy, by no more than 0.5 milligram every three days.

HOW SUPPLIED

XANAX Tablets are available as 0.25 mg, 0.5 mg, and 1 mg tablets.

Caution: Federal law prohibits dispensing without prescription.

B-5-S

Upjohn THE UPIJOHN COMPANY
Kalamazoo, Michigan 49001 USA

J-7382
February 1987

CONTINUING MEDICAL EDUCATION

(Continued from Page 424)

CARDIOLOGY

April 27-May 6—**Cardiology for the Consultant.** Scripps Clinic and Research Foundation at Rancho Santa Fe Inn, Rancho Santa Fe. Mon-Wed. 40 hrs. \$800. Contact: Bonny Mower, Dept of Academic Affairs, Scripps Clinic, 10666 N Torrey Pines Rd, La Jolla 92037. (619) 457-8556.

May 1-2—**Arrhythmias: Interpretation, Diagnosis and Management.** Medical Education Resources at Bally's (MGM) Grand Hotel, Las Vegas, Nevada. Fri-Sat. 11 hrs. \$295. Contact: Debbie Wilderson, Medical Education Resources, 5808 S Rapp St, Ste 202, Littleton, CO 80120. (800) 421-3756 or in CO 798-9682.

May 15-17—**Update in Cardiology/Resuscitation.** Superior California Medical Education Council, Redding at Alexander Valley (cycling tour). Fri-Sun. 6 hrs. Contact: J. Bear Co, PO Box 117, Burney 96013. (916) 335-3388.

May 24-30—**5th Annual Cardiology Update.** Institute for Medical Studies at Honolulu, Hawaii. Sun-Sat. 26 hrs. \$395. Contact: Lisa Krehbiel, Inst for Med Studies, 30131 Town Ctr Dr, Ste 215, Laguna Niguel 92677. (714) 495-4499.

June 7-10—**Critical Examination Review Course.** American College of Chest Physicians at Hotel Del Coronado, Coronado. Sun-Wed. 30 hrs. \$575. Contact: ACCP, PO Box 93826, Chicago, IL 60673. (312) 698-2200.

June 10—**Cardiology: Arrhythmias.** LLU at LLU. Wed. 4 hrs. \$60. Contact: LLU.

June 10-13—**Advanced Echocardiography and Doppler Ultrasound—1987.** American College of Cardiology at Sheraton Harbor Island East, San Diego. Wed-Sat. Contact: Mary Anne McNerny, ACC, 9111 Old Georgetown Rd, Bethesda, MD 20814. (301) 897-5400, ext 226.

June 18-20—**Coronary Heart Disease: Current Concepts.** Medical Education Resources at Sheraton Waikiki Hotel, Honolulu, Hawaii. Thurs-Sat. 11 hrs. \$295. Contact: Debbie Wilderson, Medical Education Resources, 5808 S Rapp St, Ste 202, Littleton, CO 80120. (800) 421-3756.

June 25-27—**Consultative Cardiology: Update in Diagnostic and Therapeutic Techniques.** American College of Cardiology at Westin South Coast Hotel, Costa Mesa. Thurs-Sat. Contact: Mary Anne McNerny, ACC, 9111 Old Georgetown Rd, Bethesda, MD 20814. (301) 897-5400, ext 226.

July 17-18—**Coronary Heart Disease: Current Concepts.** Medical Education Resources at Sheraton Hotel, Anaheim. Fri-Sat. 11 hrs. \$295. Contact: Debbie Wilderson, 5808 S Rapp St, Ste 202, Littleton, CO 80120. (800) 421-3756.

July 31-August 1—**Arrhythmias: Interpretation, Diagnosis, and Management.** Medical Education Resources at Harvey's Hotel, Lake Tahoe, Nevada. Fri-Sat. 11 hrs. \$295. Contact: Debbie Wilderson, 5808 S Rapp St, Ste 202, Littleton, CO 80120. (800) 421-3756.

August 2-7—**Current Concepts in Cardiology.** UCD at Hyatt Lake Tahoe, Incline Village, Nevada. Sun-Fri. Contact: UCD.

August 7-8—**Coronary Heart Disease: Current Concepts.** Medical Education Resources at Doubletree Inn, Monterey. Fri-Sat. 11 hrs. \$295. Contact: Debbie Wilderson, 5808 S Rapp St, Ste 202, Littleton, CO 80120. (800) 421-3756 or (303) 798-9682.

DERMATOLOGY

June 5-6—**6th Annual Southwestern Regional Cutaneous Flap Workshop.** UCLA at UCLA. Fri-Sat. 11 hrs. Contact: UCLA.

August 13-15—**Problems of the Aging Skin.** STAN at Hyatt Rikeys Hotel, Palo Alto. Thurs-Sat. Contact: STAN.

August 14-15—**Cryostat and Microscopically Controlled Surgical Workshop.** UCSD. Fri-Sat. 15 hrs. Contact: Daniel E. Gormley, MD, Director, 412 W Carroll, Glendora 91740. (818) 963-7684.

EMERGENCY MEDICINE

April 24-26—**Advanced Cardiac Life Support.** CPR Seminars at Ralph K. Davies Medical Center, San Francisco. Fri-Sun. Contact: CPR Seminars, 833 Market St, Ste 421, San Francisco 94103. (415) 543-7282.

April 25-May 1—**Critical Care Medicine.** University of Colorado at Inter-Continental Hotel, Maui, Hawaii. Sat-Fri. 20 hrs. \$395. Contact: Univ of CO, Office of CME, 4200 E 9th Ave, Box C-295, Denver, CO 80262. (303) 394-5195.

(Continued on Page 429)

CONTINUING MEDICAL EDUCATION

(Continued from Page 428)

- May 4-8—**Postgraduate Institute for Emergency and Primary Care Physicians—Symposium I and Advanced Emergency Procedures Laboratory.** UCSD at Hotel Inter-Continental, San Diego. Mon-Fri. 32 hrs. \$325-440. Contact: UCSD.
- May 8-10—**Emergency Medicine Update.** Superior California Medical Education Council, Redding at Alexander Valley (cycling tour). Fri-Sun. 6 hrs. Contact: J. Bear Co, PO Box 117, Burney 96013. (916) 335-3388.
- May 13-17—**9th Annual: Wound Management Workshop.** UCSD at San Diego Hilton Beach and Tennis Resort. Wed-Sun. Contact: Edith Bookstein, PO Box 2586, La Jolla 92038. (619) 454-3212.
- May 15-17—**Update in Cardiology/Resuscitation.** Superior California Medical Education Council, Redding at Alexander Valley (cycling tour). Fri-Sun. 6 hrs. Contact: J. Bear Co, PO Box 117, Burney 96013. (916) 335-3388.
- June 1-5—**Topics in Emergency Medicine.** UCSF at Holiday Inn Union Square, San Francisco. Mon-Fri. 31 hrs. \$420. Contact: UCSF.
- June 11-12—**Occupational and Environmental Medicine.** UCD at Capitol Plaza Holiday Inn, Sacramento. Thurs-Fri. 7 hrs. Contact: UCD.
- June 22-26—**Postgraduate Institute for Emergency and Primary Care Physicians, Symposium III and Advanced Emergency Procedures Lab.** UCSD at Hanalei Hotel, San Diego. Mon-Fri. 32 hrs. \$325-440. Contact: UCSD.
- July 24-26—**Advanced Cardiac Life Support.** CPR Seminars at Ralph K. Davies Medical Center. San Francisco. Fri-Sun. Contact: CPR Seminars, 833 Market St, Ste 421, San Francisco 94103. (415) 543-7282.
- August 12-16—**Wilderness Medicine: 1987.** Siskiyou General Hospital at Northstar, Tahoe Resort. Wed-Sun. 20 hrs. \$395. Contact: Jackie Silva, PO Box 321, Yreka 96097. (916) 842-6848.
- August 17-21—**Postgraduate Institute for Emergency and Primary Care Physicians, Symposium II and Advanced Emergency Procedures Lab.** UCSD at UCSD. Mon-Fri. 32 hrs. \$325-440. Contact: UCSD.
- August 23-28—**New Advances in Internal Medicine.** UCD at Hyatt Monterey. Sun-Fri. Contact: UCD.

INTERNAL MEDICINE

- April 29—**Thyroid '87.** Hospital of the Good Samaritan at Moseley-Salvatori Conference Ctr, Los Angeles. Wed. 7 Hrs. Contact: Dolores Gay, Hosp of the Good Samaritan, 637 S Lucas Ave, Los Angeles 90017. (213) 977-2555.
- May 2—**New Treatments in Liver and Biliary Tract Disease.** Scripps Clinic and Research Foundation, La Jolla. Sat. 7 hrs. \$110. Contact: Bonny Mower, Dept of Academic Affairs, Scripps Clinic and Research Foundation, 10666 N Torrey Pines Rd, La Jolla 92037. (619) 457-8556.
- May 16—**Clinical Aspects of Viral Disease.** Grossmont District Hospital at Kona Kai Club, San Diego. Sat. Contact: Vera Belyeu, Grossmont District Hospital, 5555 Grossmont Center Dr, La Mesa 92041. (619) 465-0711, ext 245.
- May 18-22—**Advances in Internal Medicine.** UCSF at Hyatt on Union Square, San Francisco. Mon-Fri. 32 hrs. \$440. Contact: UCSF.
- June 17-19—**Gastroenterology: Recent Developments in Theory and Practice.** UCSF at Hyatt on Union Square, San Francisco. Wed-Fri. 17 hrs. \$375. Contact: UCSF.
- June 22-26—**Advances in Internal Medicine.** UCSF at UCSF. Mon-Fri. 32 hrs. \$440.
- June 26—**Mucosal Injury, Esophageal Dysfunction, and Sleep Disorders.** Sequoia Hospital District, Redwood City. Fri. 7 hrs. \$110. Contact: Daniel Liebowitz, MD, Sequoia Hospital, Whipple and Alameda, Redwood City 94062. (800) 345-0409.

OB/GYN

- April 30-May 2—**12th Annual Symposium: Care of the Sick Newborn.** UCI. Thurs-Sat. 19 hrs. Contact: UCI.
- May 6-10—**Annual Scientific Program and Postgraduate Courses.** Pacific Coast Fertility Society at Americana Canyon Hotel, Palm

Springs. Wed-Sun. 22 hrs. Contact: Pacific Coast Fertility Society, 5820 Wilshire Blvd, #500, Los Angeles 90036. (213) 937-5514.

May 7-8—**Advanced Fetal Rate Monitoring.** UCI. Thurs-Fri. Contact: UCI.

June 5-7—**OB/GYN: Antepartum and Intrapartum Management.** UCSF at Hyatt on Union Square, San Francisco. Fri-Sun. 18 hrs. \$200-320. Contact: UCSF.

June 11-13—**Gynecologic Oncology and Breast Disease.** American College of Obstetricians and Gynecologists at Fairmont Hotel, San Francisco. Thurs-Sat. Contact: Robin Murray, ACOG, 600 Maryland Ave, SW, Washington, DC 20024-2588. (202) 638-5577.

June 30-July 5—**5th Annual Controversies in Obstetrics and Gynecology.** UCI at Mauna Kea Beach Resort, Hawaii. Tues-Sun. 22 hrs. Contact: UCI.

OPHTHALMOLOGY

August 1-8—**Ophthalmology.** USC at Mauna Kea, Hawaii. One week. 26 hrs. \$525. Contact: USC.

ORTHOPEDICS

April 30-May 2—**American Back Society Spring Symposium on Back Pain.** Anaheim Hilton Hotel. Thurs-Sat. Contact: Aubrey A. Swartz, MD, American Back Society, 2647 E 14th St, Oakland 94601. (415) 536-9929.

May 2-3—**Automated Percutaneous Lumbar Discectomy Workshop.** UCSF at Hyatt Regency, San Francisco. Sat-Sun. Contact: UCSF.

May 4-6—**Osteoporosis Update—1987.** UCSF at Hyatt Regency, San Francisco. Mon-Wed. 18 hrs. \$295. Contact: UCSF.

May 6-8—**Spine Update—1987.** UCSF at Hyatt on Union Square, San Francisco. Wed-Fri. 17 hrs. \$295. Contact: UCSF.

June 14-19—**Fingers to the Toes: Orthopaedics for Primary Care.** UCD at Stanford Sierra Camp, Fallen Leaf Lake. Sun-Fri. Contact: UCD.

PATHOLOGY

May 21-22—**Annual Meeting: Current Issues in Anatomic Pathology.** UCSF at San Francisco. Thurs-Fri. 12 hrs. Contact: UCSF.

August 22-29—**7th Annual Symposium on Fine Needle Aspiration.** California Society of Pathologists and UCSF at Royal Lahaina Resort, Kaanapali Beach, Maui, Hawaii. One week. 24.5 hrs. Contact: UCSF.

PEDIATRICS

May 2-9—**Forefronts in Pediatrics.** EPIC Expeditions and University of Arizona at Sonoma and Napa Valleys. One week. 24 hrs. Contact: Kathy Rairigh, EPIC Expeditions, PO Box 209, Sun Valley, ID 83353. (208) 788-4995.

May 4-7—**Pediatrics in the 80s—The 17th Annual Pediatrics Course.** USC at Marina Beach Hotel, Marina del Rey. Mon-Thurs. 18.5 hrs. \$395. Contact: USC—in California, (800) 321-1929, National, (800) 421-6729.

May 21-23—**American Academy of Pediatrics Spring Session.** AAP at San Francisco. Thurs-Sat. Contact: Guy Di Cara, AAP, PO Box 927, Elk Grove Village, IL 60007. (800) 433-9016, or in Illinois, (800) 421-0589.

July 24-25—**Debates and Updates in Pediatric Emergencies.** UCSF at Hyatt on Union Square, San Francisco. Fri-Sat. 14 hrs. \$235. Contact: UCSF.

RADIOLOGY

April 19-24—**7th Annual San Diego Residents' Radiology Review Course.** UCSD at Town and Country Hotel, San Diego. Sun-Fri. 39 hrs. \$395. Contact: UCSD.

May 1-3—**12 Annual Spring Diagnostic Ultrasound.** Los Angeles Radiological Society at Century Plaza Hotel, Los Angeles. Fri-Sun. 19.5 hrs. \$325. Contact: Diane L. Johnson, LARS, 5200 Century Blvd, Ste 920, Los Angeles 90045. (213) 642-0921.

(Continued on Page 509)

New Active Members . . .

The Arizona Medical Association welcomes the following new members:

COCHISE

Tae-Uk Cho, M.D.

Anesthesiology
P.O. Box 2798, Sierra Vista
Korea University Medical
College - 1973

COCONINO

Garry R. Greene, M.D.

Anesthesiology
1215 North Beaver Street
Flagstaff
University of Washington
School of Medicine - 1978

GILA

William K. Peck, M.D.

Radiology
807 South Ponderosa
Payson
New York University
School of Medicine - 1943

MARICOPA

Terry Clayton, M.D.

Anesthesiology
3030 South Rural Road
Tempe
University of Utah
College of Medicine - 1983

Edward H. Kowaleski, M.D.

Family Practice, Sports Medicine
13200 North 103rd Avenue
Suite 7, Sun City
Wayne State University
School of Medicine - 1979

Marie Mesaros, M.D.

Anesthesiology
1040 East McDowell, Phoenix
Medical College of
Pennsylvania - 1965

Robert L. Moss, M.D.

Anesthesiology
1845 South Dobson
Suite 213, Mesa
Medical College of
Wisconsin - 1980

Jeffrey M. Pont, M.D.

Internal Medicine
6135 North 7th Street, Phoenix
Wayne State University
School of Medicine - 1982

John C. Porter, M.D.

Physical Medicine &
Rehabilitation
2021 North Central
Suite 103, Phoenix
Fac De Med/La Univ de
Nuevo Leon - 1981

Robert J. Spies, M.D.

Plastic Surgery, General Surgery
10565 North Tatum Boulevard
Suite B-116, Paradise Valley
Ohio State University
College of Medicine - 1979

Jeffrey M. Taffet, M.D.

Otorhinolaryngology
3411 North 32nd Street
Phoenix
Univ De Monterrey Inst
Cien De La Sal - 1979

PIMA

Gregory J. Boulanger, M.D.

Anesthesiology
5200 East Grant Road
Suite 602, Tucson
Medical College of
Wisconsin - 1981

William P. Diefenbach, M.D.

Neurological Surgery
5402 East Grant Road
Tucson
Columbia University
College of Physicians
and Surgeons - 1979

John W. Hesser, M.D.

Obstetrics & Gynecology,
Maternal/Fetal Medicine
5200 East Grant Road
Bldg. No. 800, Tucson
University of Colorado
School of Medicine - 1972

Joseph Latack, M.D.

Radiology
3170 East Fort Lowell
Tucson
University of Michigan
Medical School - 1969

Eve C. Shapiro, M.D.

Pediatrics, Adolescent Medicine
529 West Wetmore Road
Tucson
State University of New York
College of Medicine,
Syracuse - 1976

David R. Siegel, M.D.

Neurology
1601 North Tucson Boulevard
Suite 2, Tucson
University of California
Los Angeles School of
Medicine - 1979

Thomas J. Tilsner, M.D.

Otorhinolaryngology
6546 Carondelet, Tucson
University of Minnesota
Medical School - 1971

Paul R. Vanatta, M.D.

Pathology, Clinical Pathology
6200 North La Cholla
Boulevard, Tucson
University of Texas
Southwestern Medical
School - 1978

Merri B. Morris, M.D.

Obstetrics & Gynecology
1820 East Florence
Boulevard, Casa Grande
University of Arizona
College of Medicine - 1982

YUMA

Herman M. Fountain, M.D.

Emergency Medicine
2400 Avenue A, Yuma
University of Miami
School of Medicine - 1973

NEW ASSOCIATE MEMBERS

MARICOPA

Scott C. Benson, M.D.

Family Practice
P.O. Box 1387, Mesa
University of Arkansas
College of Medicine - 1948

Alvin M. Kurzon, M.D.

Obstetrics & Gynecology
4303 East Cactus Road
Phoenix
Medical College of
Wisconsin - 1943

NEW RESIDENT MEMBERS

MARICOPA

Paul R. Barnard, M.D.

Pulmonary Diseases,
Internal Medicine
Good Samaritan Medical Center
Creighton University
School of Medicine - 1982

Janice Dorn, M.D.

Psychiatry
Maricopa County Medical Center
Univ Autonoma De
Ciudad Juarez - 1982

Samuel W. Downing, M.D.

Family Practice
Phoenix Baptist Hospital
University of Colorado
School of Medicine - 1985

Daniel Gee, M.D.

Anesthesiology
7748 East Granada
Scottsdale
University of Arizona
College of Medicine - 1983

Thomas W. Grahm, M.D.
Neurological Surgery
St. Joseph's Hospital and
Medical Center
University of Texas
School of Medicine,
Galveston - 1983

Kathleen W. Jones, M.D.
Internal Medicine
Good Samaritan Medical Center
Indiana University
School of Medicine - 1984

Delwyn J. Worthington
Orthopedic Surgery
Maricopa County Medical Center
University of Arizona
College of Medicine - 1982

PIMA

Sandra M. Clark, M.D.
Family Practice
1450 North Cherry Street
Tucson
Temple University - 1978

Scott Krasner, M.D.
Occupational Medicine,
Obstetrics & Gynecology
1445 North Warren Avenue
Tucson
Medical College of
Wisconsin - 1983

NEW STUDENT MEMBERS

PIMA — UNIVERSITY OF ARIZONA COLLEGE OF MEDICINE

Michael F. Allen
3700 North 1st Avenue
Suite 1121, Tucson

Irene B. Flahie

Patrick S. Freeman
1487 East Hampton
Suite B, Tucson

Jennifer A. Harvey
2601 West Broadway
Suite 598, Tucson

Amy J. Kenrick
720 North Longfellow
Avenue, Tucson

David King
142 South Tucson Boulevard
Suite 9A, Tucson

David A. Pedersen
449 East Smoot Drive
Tucson

Stephen A. Shapiro
1201 East Drachman Street
Tucson

Marie South
2146 East Hawthorne Road
Tucson

Karen Vournas
5701 East Gleen
Suite 74, Tucson

Keith Wharton, Jr.
3015-1 North Olsen
Tucson

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PRACTICE MANAGEMENT PROBLEMS?

**DO ANY OF THESE
SOUND FAMILIAR?**

- Declining Patient Volume and Practice Income
- Increasing Overhead
- More Competition Than Ever Before
- Demanding Patients
- Confusion Over Governmental Reimbursement Plans
- Skyrocketing Malpractice Insurance Premiums
- Confusing Contracts from Prepaid Health Plans

While it may not be possible to eliminate all of these problems, it is possible for medical practices to control at least a portion of these challenges through effective Practice Management.

The Professional Practice Division of Toback & Company can provide marketing advice which will increase patient volume; financial tools to increase income and control overhead; reduce office conflict and personnel management problems, reducing employee turnover; and increase physician satisfaction with the practice. Richard E. Kirkpatrick, M.H.S.A., Manager of our Professional Practice Division and a nationally recognized authority on medical practice management can provide you with additional information on the benefits of our services in a no-fee interview. Please call 264-9011 to schedule an appointment.

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Richard E.
Kirkpatrick



production. The latter occurs by resorption and replacement of dead trabeculae and appositional growth around dead trabeculae.

Although there is an immune response to transplanted allograft bone, immunosuppressive drugs are not used to neutralize the reaction because of their serious side effects. Graft immunogenicity may be reduced by freezing the allograft before transplantation and forcefully lavaging the allograft bone to remove the fat cells and hematopoietic elements that provoke an immune response in a patient.

Treatment of cartilage allografts with dimethyl sulfoxide and 10% glycerine before freezing has been reported to maintain viability of about 50% of donor chondrocytes. There is a question, however, as to the capacity of these cells to produce collagen and mucopolysaccharides after thawing and transplantation.

More recently there have been reports of the successful resurfacing of portions of synovial joints in the lower extremities with fresh nonfrozen composite graft of hyaline cartilage and bone. The bone portion provokes a clinically insignificant immune response. The cartilage of the graft is thought to be "immunologically privileged" because the matrix prevents the diffusion of large molecules of antigens and antibodies. Because of this, the afferent and efferent arms of the immune reaction cannot interact and produce a rejection response.

MARVIN H. MEYERS, MD
La Jolla, California

REFERENCES

- Gross AE, Silverstein EA, Folk J, et al: The allotransplantation of partial joints in the treatment of osteoarthritis of the knee. *Clin Orthop* 1975; 108:7-14
- Harris WH, Crothers O, Oh I: Total hip replacement and femoral-head bone-grafting for severe acetabular deficiency in adults. *J Bone Joint Surg [Am]* 1977 Sep; 59:752-759
- Meyers MH: Resurfacing of the femoral head with fresh osteochondral allografts. *Clin Orthop* 1985 Jul-Aug; 197:111-114
- Parrish FF: Treatment of bone tumors by total excision and replacement with massive autologous and homologous grafts. *J Bone Joint Surg [Am]* 1973; 55:1-22

Endoprosthetic Limb Salvage Operation for Malignant Bone Tumors

THE HISTORICAL APPROACH to the local control of primary malignant bone tumors, including osteosarcoma, chondrosarcoma, fibrosarcoma, malignant fibrohistiocytoma and, in certain instances, Ewing's sarcoma, has been amputation. Recent advances in surgical resection techniques, muscle transfers and improved mechanical design of custom endo-

protheses have established the limb-sparing operation as a possible alternative for local control of malignant bone tumors when coupled with preoperative adjuvant therapy.

Two basic goals must be achieved by a limb-sparing operation for malignant bone tumors. The local recurrence rate in a salvaged extremity should be no higher than that achieved with amputation, and the reconstructed extremity should be enduring and functional, without requiring repetitive hospital admissions for the management of local complications or complex revisional procedures.

The functional results of endoprosthetic reconstruction following wide resection for malignant bone tumors have been excellent about the knee and good to excellent at the hip. Scapular and proximal humeral replacements permit normal hand and elbow function and avoid the need for orthoses and cumbersome prostheses. For pelvic lesions, an internal hemipelviectomy, when feasible, retains the extremity and results in an extremity with good cosmetic appearance and moderate function. Neurovascular gastrocnemius muscle transfers permit endoprosthetic replacement of the proximal tibia with the anticipation of reasonable extensor function of the knee. Expandable prostheses make limb salvage for a very young patient, especially with Ewing's sarcoma, feasible.

Preoperative chemotherapy and radiation therapy have decreased the local recurrence rate after a limb-sparing operation to 5%, not statistically different from the local recurrence rates seen following amputation. In the absence of preoperative adjuvant chemotherapy, the reported local recurrence rates range between 20% and 60%.

In summary, limb-sparing surgical techniques using improved custom endoprostheses with preoperative adjuvant chemotherapy now permit a limb-sparing operation in most patients presenting with primary malignant bone tumors. Amputation for the primary control of malignant bone tumors continues to be indicated for those patients who present with very large tumors, those with incorrectly placed or infected biopsy incisions and patients who present with tumors of the distal tibia or the foot.

JEFFREY J. ECKARDT, MD
Los Angeles

REFERENCES

- Eckardt JJ, Eilber FR, Dorey FJ, et al: The UCLA experience in limb salvage surgery for malignant tumors. *Orthopedics* 1985; 8:612-621
- Eilber FR, Eckardt JJ, Morton DL: Advances in the treatment of sarcomas of the extremity: Current status of limb salvage. *Cancer* 1985 Dec; 54:2695-2701

ADVISORY PANEL TO THE SECTION ON ORTHOPEDICS

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CONTINUING MEDICAL EDUCATION

(Continued from Page 429)

- May 2-3—**Automated Percutaneous Lumbar Discectomy Workshop.** UCSF at Hyatt Regency, San Francisco. Sat-Sun. Contact: UCSF.
- May 4-6—**Osteoporosis Update—1987.** UCSF at Hyatt Regency, San Francisco. Mon-Wed. 18 hrs. \$295. Contact: UCSF.
- May 5-9—**7th Annual Diagnostic Ultrasound Post Conference Seminar.** Los Angeles Radiological Society at Sheraton Princeville Hotel, Kauai, Hawaii. Tues-Sat. 19 hrs. \$395. Contact: Diane L. Johnson, LARS, 5200 Century Blvd, Ste 920, Los Angeles 90045. (213) 642-0921.
- May 6-8—**Spine Update—1987.** UCSF at Hyatt on Union Square, San Francisco. Wed-Fri. 17 hrs. \$295. Contact: UCSF.
- June 10-13—**Advanced Echocardiography and Doppler Ultrasound—1987.** American College of Cardiology at Sheraton Harbor Island East, San Diego. Wed-Sat. Contact: Mary Anne McInerney, ACC, 9111 Old Georgetown Rd, Bethesda, MD 20814. (301) 897-5400, ext 226.
- June 14-16—**1987 Radiology US Open Golf Meeting.** UCSF at Hyatt Regency, San Francisco. Sun-Tues. Contact: UCSF.
- August 3-7—**Diagnostic Radiology Seminars.** UCSF at Hyatt Regency, Maui, Hawaii. Mon-Fri. 27.5 hrs. \$495. Contact: UCSF.
- August 13-15—**Advanced Ultrasound.** American College of Obstetricians and Gynecologists at Silverado Inn, Napa. Thurs-Sat. Contact: Robin Murray, ACOG, 600 Maryland Ave SW, Washington, DC 20024-2588. (202) 638-5577.
- August 22-29—**Radiology.** USC at Maui Marriott Hotel, Maui, Hawaii. One week. 26 hrs. \$525. Contact: USC.
- August 26-28—**Interventional Radiology.** UCSF at Hyatt Regency Hotel, San Francisco. Wed-Fri. Contact: UCSF.
- August 29-30—**Advances in Imaging Technology.** UCSF at Hyatt Regency, San Francisco. Sat-Sun. Contact: UCSF.
- September 10-12—**Contemporary Diagnostic Imaging: CT, Interventional, MRI, US.** UCSF at Hyatt Regency, Monterey. Thurs-Sat. Contact: UCSF.

SPORTS MEDICINE

- July 27-31—**Sports Medicine Update—1987.** UCSD at San Diego Princess Hotel, Vacation Village. Mon-Fri. 29.5 hrs. \$325. Contact: UCSD.

SURGERY

- April 30-May 2—**American Back Society Spring Symposium.** Anaheim Hilton Hotel. Thurs-Sat. Contact: Aubrey A. Swartz, American Back Soc, 2647 E. 14th St, Ste 401, Oakland 94601. (415) 536-9929.
- April 30-May 2—**Postgraduate Course in General Surgery.** UCSF at Hotel Meridien, San Francisco. Thurs-Sat. 15 hrs. Contact: UCSF.
- May 1-2—**Prosthetics/Orthotics.** UCD at Sacramento. Fri-Sat. Contact: UCD.
- May 11-15—**The San Francisco Orthopaedic Review Course.** UCSF at San Francisco. Mon-Fri. 40 hrs. Contact: UCSF.
- May 13—**Otolaryngology: ENT Infections.** LLU at LLU. Wed. 4 hrs. \$60. Contact: LLU.
- May 14-16—**Symposium on the Temporomandibular Joint.** UCSF at Hyatt Regency, Monterey. Thurs-Sat. 13 hrs. \$295. Contact: UCSF.
- May 18-21—**Cochlear Implant Training—1987.** House Ear Institute, Los Angeles. Mon-Thurs. 24 hrs. \$250. Contact: Antonio De la Cruz, MD, House Ear Institute, 256 S Lake St, Los Angeles 90057. (213) 483-4431.
- June 4-5—**16th Annual Neurosurgical Postgraduate Course.** UCSF at San Francisco. Thurs-Sat. 15 hrs. Contact: UCSF.
- June 5-6—**6th Annual Southwestern Regional Cutaneous Flap Workshop.** UCLA at UCLA. Fri-Sat. 11 hrs. Contact: UCLA.
- June 14-20—**Temporal Bone Surgical Dissection—1987.** House Ear Institute, Los Angeles. Sun-Sat. 62 hrs. \$950. Contact: Antonio De la Cruz, MD, House Ear Institute, 256 S Lake St, Los Angeles 90057. (213) 483-4431.
- September 14-17—**Cochlear Implant Training—1987.** House Ear Institute, Los Angeles. Mon-Thurs. 24 hrs. \$250. Contact: Antonio De la Cruz, MD, House Ear Institute, 256 S Lake St, Los Angeles 90057. (213) 483-4431.

OF INTEREST TO ALL PHYSICIANS

- April 18-22—**Physical Diagnosis: An Intensive Review.** Memorial Medical Center of Long Beach at Maui, Hawaii. Sat-Wed. 28 hrs. Contact: Beverly Ritchie, Memorial Medical Center of Long Beach, 2801 Atlantic Ave, PO Box 1428, Long Beach 90801-1428. (213) 595-2311.
- April 20-23—**Selective Topics in Dermatology and Pulmonary Intensive Care.** LLU at LLU. Mon-Thurs. 16 hrs. \$400. Contact: LLU.
- April 23-25—**37th Annual Regional Postgraduate Institute for San Joaquin Valley Counties.** CMA and Fresno-Madera Medical Society at Curry Village Pavilion, Yosemite. Thurs-Sat. 12 hrs. \$150-200. Contact: Janice Rigney, CMA.
- April 24-25—**Sex, Drugs and Rock'n Roll: Effects on the Family.** UCI at Sheraton Newport, Newport Beach. Fri-Sat. 13.5 hrs. \$175. Contact: UCI.
- April 25—**Patient Education: Neuromuscular Disease.** UCD at Pacific Bell Auditorium, Sacramento. Sat. Contact: UCD.
- April 25-26—**Transurethral Uteroscopy: A Seminar and Workshop.** UCSD at La Jolla Marriott Hotel, La Jolla. Sat-Sun. 13.5 hrs. \$275-400. Contact: UCSD.
- May 11-12—**Annual Child Abuse Conference—Physical Abuse: The Traumatized Child and Family.** UCD at Sacramento Inn. Mon-Tues. 10 hrs. Contact: UCD.
- May 11-13—**Arthritis Update '87.** Sharp Memorial Hospital, San Diego and UCSD at Hyatt Islandia Hotel, San Diego. Mon-Wed. Contact: Mary Belich, Sharp Memorial Hospital, 7901 Frost St, San Diego 92123-2788. (619) 541-3400.
- May 13—**Modern Use of Antibiotics.** UCD at Red Lion Motor Inn. Wed. 4 hrs. Contact: UCD.
- May 15-16—**Issues in Identification, Amplification and Rehabilitation With the Hard of Hearing, School-Aged Child.** UCI. Fri-Sat. 10 hrs. Contact: UCI.
- May 20-23—**Physical Diagnosis: An Intensive Review.** Memorial Medical Center of Long Beach at Long Beach. Wed-Sat. 28 hrs. Contact: Beverly Ritchie, Memorial Medical Center of Long Beach, 2801 Atlantic Ave, PO Box 1428, Long Beach 90801-1428. (213) 595-2311.
- June 8-13—**UCI Family Practice Refresher Course.** UCI at Newport Beach. Mon-Sat. Contact: UCI.
- June 11—**AIDS: Issues for the Primary Care Physician.** Alta Bates Hospital, Berkeley. Thurs. 5 hrs. \$40. Contact: Mary Grim, Alta Bates Hospital, 3001 Colby St, Berkeley 94705. (415) 540-1420.
- June 14-19—**Fingers to the Toes: Orthopaedics for Primary Care.** UCD at Stanford Sierra Camp, Fallen Leaf Lake. Sun-Fri. 36 hrs. Contact: UCD.
- June 15-19—**Sexually Transmitted Disease (STD) Clinician Training Course—Advanced.** Long Beach Health Dept at Long Beach. Mon-Fri. Contact: Anne-Renee Henningberg, Long Beach STD Trng Ctr, PO Box 6157, Long Beach 90806. (213) 427-7421.
- June 19-21—**Family Practice Update.** USC at Pasadena Hilton Hotel, Pasadena. Fri-Sun. 16 hrs. \$250. Contact: USC.
- June 26—**Mucosal Injury, Esophageal Dysfunction, and Sleep Disorders.** Sequoia Hospital District, Redwood City. Fri. 7 hrs. \$110. Contact: Daniel Liebowitz, MD, Sequoia Hospital, Whipple and Alameda, Redwood City 94062. (800) 345-0409.
- June 28-29—**9th Annual Poison Control Center: Management of Drug Overdose and Poisoning.** UCSF at San Francisco. Sun-Mon. 14 hrs. \$235. Contact: UCSF.
- June 28-July 2—**Advances in Primary Care: 14th Annual Family Practice Refresher Course.** UCD at Caesar's Tahoe, So Lake Tahoe. Sun-Thurs. Contact: UCD.
- July 6-9—**Family Practice Board Review.** UCSF at UCSF. Mon-Thurs. 25 hrs. \$375. Contact: UCSF.
- August 16-26—**30th Anniversary Postgraduate Refresher Course—Program I.** USC at Sheraton Waikiki Hotel, Honolulu and the Marriott Hotel, Maui, Hawaii. Sun-Wed. 37 hrs. \$535-585. Contact: USC, in California, (800) 321-1919, outside California, (800) 421-6729.
- August 20-21—**6th Annual: General Medicine Update for Practicing Physicians.** Northern Inyo Hospital, Bishop. Wed-Thurs. 10 hrs. Contact: Lynda Schmidt, Northern Inyo Hospital, 150 Pioneer Lane, Bishop 93514. (619) 873-5811.

(Continued on Page 510)

CONTINUING MEDICAL EDUCATION

(Continued from Page 509)

August 23-September 2—**30th Anniversary Postgraduate Refresher Course—Program II.** USC at Marriott Hotel, Maui and the Waiohai Hotel, Kauai, Hawaii. Sun-Wed. 37 hrs. \$535-585. Contact: USC, in California, (800) 321-1929, outside California, (800) 421-6729.

September 9-11—**Primary Care Medicine: Principles and Practice.** UCSF at Hyatt on Union Square, San Francisco. Wed-Fri. \$365. Contact: UCSF.

September 14-18—**STD Clinician Training Course—Intensive.** Long Beach Health Dept. Mon-Fri. Contact: Anne-Renee Henningberg, Long Beach STD Training Center, PO Box 6157, Long Beach 90806. (213) 427-7421.

September 21-22—**7th Annual Bristol-Myers Symposium on Nutrition Research: Nutrition and the Origins of Disease.** UCD at Fairmont Hotel, San Francisco. Mon-Tues. Contact: UCD.

IDAHO

June 28-July 5—**Effective Management of Common Sports Injuries.** Middle Fork of the Salmon River. One week. Sponsored by the University of Arizona College of Medicine, Department of Family and Community Medicine, and Epic Expeditions. 24 hrs. Contact: Kathy Rairigh, EPIC EXPEDITIONS, PO Box 209, Sun Valley, ID 83353. (208) 788-4995.

July 27-August 2—**Idaho Medical Association Annual Meeting.** Coeur d'Alene. One week. Contact: IMA, 305 W Jefferson, PO Box 2668, Boise 83701. (208) 344-7888.

August 1-8—**Forefronts in Pediatrics.** Sun Valley. One week. Sponsored by the University of Arizona College of Medicine, Department of Family and Community Medicine, and Epic Expeditions. 24 hrs. Contact: Kathy Rairigh, EPIC EXPEDITIONS, PO Box 209, Sun Valley, ID 83353. (208) 788-4995.

MONTANA

June 18-20—**Montana Academy of Family Physicians—Annual Meeting.** Fairmont Hot Springs, Anaconda. 17 hrs. Contact: John Patterson, MD, 7 E Beall, Bozeman 59715. (406) 587-5123.

NEW MEXICO

Information, requests for accreditation and items to be listed should be sent to the chairman of the CME Committee, New Mexico Medical Society, 303 San Mateo NE, Suite 204, Albuquerque, NM 87108 at least two months in advance. For information on CME accreditation or on the CME requirements of the New Mexico Board of Medical Examiners, please write to the above address or call (505) 266-7868.

NOTE: Course information in the following listing is subject to change on occasion. Check with the sponsoring institution for current details.

April 24-25—**Practical Orthopaedics in the Primary Care Setting.** Albuquerque. Fri-Sat. Veterans Administration Medical Center. Contact: Office of CME, UNM School of Medicine, Albuquerque 87131. (505) 277-3942.

May 6-8—**New Mexico Medical Society—Annual Meeting.** Albuquerque. Wed-Fri. Clarion Four Seasons. Contact: NMMS, 303 San Mateo NE, #204, Albuquerque 87108. (505) 266-7868.

May 15-16—**Biological and Ethical Dimensions of Human Transplantation.** Albuquerque. Fri-Sat. Contact: Office of Medical Education, Presbyterian Hospital, PO Box 26666, Albuquerque 87125. (505) 841-1225.

UTAH

This listing of continuing medical education courses in Utah is compiled and edited by the CME office of the Utah State Medical Association. All courses listed have been certified by CME accredited institutions as meeting the criteria for Category 1 of the Physician's Recognition Award of the American Medical Association. They also must meet the definition of Utah Approved CME Credit for the purpose of medical license reregistration in Utah. Accredited institutions wishing to list AMA Category 1/Utah Approved CME courses here should send information at least two months in advance to the Office of Continuing Medical Education, 540 East Fifth South, Salt Lake City, Utah 84102; or phone (801) 355-5290. For information on CME accreditation or on the CME requirements of the Utah Physicians' Licensing Board, please write the CME office at the above address.

NOTE: Course information in the following listing is subject to change on occasion. Check with the sponsoring institution or the CME office for current details.

MEDICAL GRAND ROUNDS

Each Wed—8:00-9:00 a.m. Alternating between University of Utah Medical Center and VA Medical Center, Salt Lake City. Contact: William D. Odell, MD, PhD, Professor and Chairman, Dept of Internal Medicine, Univ of Utah, (801) 581-7606.

* * *

April 23-24—**Contemporary Adolescent Health** (Sponsor: UUMC). Thurs-Fri. Marriott Hotel, Salt Lake City. Contact: Valerie Velez, (801) 359-2444.

May 11-15—**Industrial Toxicology** (Sponsor: UUMC). Mon-Fri. Univ of Utah, Salt Lake City. 28.5 hrs. Contact: (801) 581-5710.

SPONSORS OF COURSES—ABBREVIATIONS

- AHA: American Heart Association, Utah Affiliate, 645 E 400 South, Salt Lake City 84102. (801) 322-5601.
- BYUHS: Brigham Young University Health Services, McDonald Student Health Center, Brigham Young University, Provo 84602. (801) 378-2771.
- CH: Castleview Hospital (formerly Carbon Hospital), RFD 2, Box 46, Price 84501. (801) 637-4800.
- CWH: Cottonwood Hospital, 5770 S 300 East, Salt Lake City 84101. (801) 262-3461.
- DMC: Dixie Medical Center, 544 S 400 East, St George 84770. (801) 673-9681.
- HCH: Holy Cross Hospital, 1045 E First South, Salt Lake City 84102. (801) 350-4744.
- ITS: Intermountain Thoracic Society, 1616 S 11th East, Salt Lake City 84105. (801) 484-4456.
- LDSH: Latter-Day Saints Hospital, 325 8th Ave, Salt Lake City 84143. (801) 350-1100.
- LRH: Logan Regional Hospital, 1400 N 5th East, Logan 84321. (801) 752-2050.
- MDH: McKay-Dee Hospital Center, 3939 Harrison Blvd, Ogden 84409. (801) 399-4141.
- MVH: Mountain View Hospital, 1000 E Highway 6, Payson 84651. (801) 465-9201.

(Continued on Page 520)

MOTRIN® Tablets

(ibuprofen)

CONTRAINDICATIONS: Anaphylactoid reactions have occurred in individuals hypersensitive to MOTRIN or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents.

WARNINGS: Peptic ulceration and G.I. bleeding, sometimes severe, have been reported. Ulceration, perforation and bleeding may end fatally. An association has not been established. Use MOTRIN under close supervision in patients with a history of upper gastrointestinal tract disease, after consulting ADVERSE REACTIONS. In patients with active peptic ulcer and active rheumatoid arthritis, try nonulcerogenic drugs, such as gold. If MOTRIN is used, observe the patient closely for signs of ulcer perforation or G.I. bleeding.

PRECAUTIONS: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue MOTRIN and the patient should have an ophthalmologic examination, including central visual fields and color vision testing.

Fluid retention and edema have been associated with MOTRIN; use with caution in patients with a history of cardiac decompensation or hypertension.

MOTRIN can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision, skin rash, weight gain, or edema.

Patients on prolonged corticosteroid therapy should have therapy tapered slowly when MOTRIN is added. The antipyretic, anti-inflammatory activity of MOTRIN may mask inflammation and fever.

As with other nonsteroidal anti-inflammatory drugs, borderline elevations of liver tests may occur in up to 15% of patients. These abnormalities may progress, may remain essentially unchanged, or may be transient with continued therapy. Meaningful elevations of SGPT or SGOT (AST) occurred in controlled clinical trials in less than 1% of patients. Severe hepatic reactions, including jaundice and cases of fatal hepatitis, have been reported with ibuprofen as with other nonsteroidal anti-inflammatory drugs. If liver disease develops or if systemic manifestations occur (e.g. eosinophilia, rash, etc.), MOTRIN should be discontinued.

In cross-study comparisons with 1200 mg to 3200 mg daily for several weeks, a slight dose-response decrease in hemoglobin/hematocrit was noted. The total decrease in hemoglobin usually does not exceed 1 gram.

Renal Effects: Long term administration of ibuprofen and other NSAID's to animals has resulted in renal papillary necrosis and other abnormal renal pathology. In humans, there have been reports of acute interstitial nephritis with hematuria, proteinuria, and occasionally nephrotic syndrome. In patients with prerenal conditions and reduced renal blood flow or blood volume, NSAID's may precipitate overt renal decompensation. Patients with impaired renal function, heart failure, liver dysfunction, those taking diuretics and the elderly are at greatest risk. Discontinuation of NSAID therapy is typically followed by recovery to the pretreatment state. In patients with renal impairment, reduced dosage may be necessary. Prospective studies of MOTRIN safety in patients with chronic renal failure have not been done.

Drug Interactions: Aspirin: Used concomitantly may decrease MOTRIN blood levels.

Coumarin: Bleeding has been reported in patients taking MOTRIN and coumarin.

Pregnancy and nursing mothers: MOTRIN should not be taken during pregnancy or by nursing mothers.

ADVERSE REACTIONS: The most frequent type of adverse reaction occurring with MOTRIN is gastrointestinal of which one or more occurred in 4% to 16% of the patients. Reported side effects were higher at 3200 than at 2400 mg/day or less.

Incidence Greater than 1% (but less than 3%)—Probable Causal Relationship

GASTROINTESTINAL: Nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence);

CENTRAL NERVOUS SYSTEM: Dizziness,* headache, nervousness; **DERMATOLOGIC:** Rash* (including maculopapular type), pruritus; **SPECIAL SENSES:** Tinnitus; **METABOLIC/ENDOCRINE:** Decreased appetite;

CARDIOVASCULAR: Edema, fluid retention (generally responds promptly to drug discontinuation; see PRECAUTIONS).

Incidence less than 1% Probable Causal Relationship**

GASTROINTESTINAL: Gastric or duodenal ulcer with bleeding and/or perforation, gastrointestinal hemorrhage, melena, gastritis, hepatitis, jaundice, abnormal liver function tests; **CENTRAL NERVOUS SYSTEM:** Depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma;

DERMATOLOGIC: Vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome, alopecia; **SPECIAL SENSES:** Hearing loss, amblyopia (blurred and/or diminished vision, scotomata and/or changes in color vision) (see PRECAUTIONS); **HEMATOLOGIC:** Neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs positive), thrombocytopenia with or without purpura, eosinophilia, decreases in hemoglobin and hematocrit (see PRECAUTIONS); **CARDIOVASCULAR:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations;

ALLERGIC: Syndrome of abdominal pain, fever, chills, nausea and vomiting; anaphylaxis, bronchospasm (see CONTRAINDICATIONS); **RENAL:** Acute renal failure in patients with pre-existing significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria; **MISCELLANEOUS:** Dry eyes and mouth, gingival ulcer, rhinitis.

Incidence less than 1%—Causal Relationship Unknown**

GASTROINTESTINAL: Pancreatitis; **CENTRAL NERVOUS SYSTEM:** Paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri; **DERMATOLOGIC:** Toxic epidermal necrolysis, photoallergic skin reactions; **SPECIAL SENSES:** Conjunctivitis, diplopia, optic neuritis, cataracts; **HEMATOLOGIC:** Bleeding episodes (e.g. epistaxis, menorrhagia); **METABOLIC/ENDOCRINE:** Gynecomastia, hypoglycemic reaction, acidosis;

CARDIOVASCULAR: Arrhythmias (sinus tachycardia, sinus bradycardia); **ALLERGIC:** Serum sickness, lupus erythematosus syndrome, Henoch-Schönlein vasculitis, angioedema; **RENAL:** Renal papillary necrosis.

*Reactions occurring in 3% to 9% of patients treated with MOTRIN. (Those reactions occurring in less than 3% of the patients are unmarked).

**Reactions are classified under "Probable Causal Relationship (PCR)" if there has been one positive rechallenge or if three or more cases occur which might be causally related. Reactions are classified under "Causal Relationship Unknown" if seven or more events have been reported but the criteria for PCR have not been met.

OVERDOSAGE: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine so alkaline diuresis may be beneficial.

DOSE AND ADMINISTRATION: Do not exceed 3200 mg/day.

Rheumatoid and osteoarthritis: Suggested dosage is 1200 to 3200 mg per day (400, 600 or 800 mg t.i.d. or q.i.d.). The smallest effective dosage should be used. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary.

HOW SUPPLIED:

MOTRIN Tablets, 400 mg (orange)	MOTRIN Tablets, 600 mg (peach)	MOTRIN Tablets, 800 mg (apricot)
Bottles of 500	Bottles of 500	Bottles of 100
Unit-dose package of 100	Unit-dose package of 100	Bottles of 500
Unit of Use bottles of 100	Unit of Use bottles of 100	

CAUTION: FEDERAL LAW PROHIBITS DISPENSING WITHOUT PRESCRIPTION.

For additional product information, see your Upjohn representative or consult the package insert.

MED B-9-S



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Books Received

(Continued from Page 423)

INTERPRETING CARDIAC DYSRHYTHMIAS—J. Marcus Wharton, MD, Fellow in Cardiology and Electrophysiology, Duke University School of Medicine, Durham, North Carolina, and Nora Goldschlager, MD, Clinical Professor of Medicine, University of California, San Francisco, School of Medicine, and Director, Coronary Care Unit and Electrocardiographic Laboratory, San Francisco General Hospital Medical Center. Medical Economics Books, Oradell, NJ 07649, 1987. 241 pages, price not given (paperback).

KEY FACTS IN PATHOLOGY—Para Chandrasoma, MD, MRCP(UK), Assistant Professor, Department of Pathology, University of Southern California School of Medicine, and Director of Surgical Pathology, Los Angeles County-USC Medical Center, and Clive R. Taylor, MD, DPhil, MRCPPath, Professor and Chairman, Department of Pathology, University of Southern California School of Medicine, and Director of Laboratories and Pathology, Los Angeles County-USC Medical Center, Los Angeles. Churchill Livingstone Inc, 1560 Broadway, New York, NY 10036, 1986. 417 pages, \$27.50 (paperback).

LABORATORY DIAGNOSIS IN OPHTHALMOLOGY—Edited by Zeynel A. Karcioglu, MD, Professor of Ophthalmology and Pathology, Tulane University School of Medicine; Director, O'Brien Ocular Pathology Laboratory, Tulane Medical Center, and Director of Laboratories, Eye, Ear, Nose and Throat Hospital, New Orleans. Macmillan Publishing Co, 866 Third Ave, New York, NY 10022, 1987. 260 pages, \$65 (cloth).

LIVER PATHOLOGY—Volume 8 in Contemporary Issues in Surgical Pathology—Edited by Robert L. Peters, MD, Professor of Pathology, USC School of Medicine, Los Angeles, and Chief Pathologist, USC Liver Unit, Rancho Los Amigos Medical Center, Downey, California, and John R. Craig, MD, PhD, Associate Clinical Professor of Pathology, USC School of Medicine, Los Angeles, and Chief Pathologist, St Luke Medical Center, Pasadena, California. Churchill Livingstone Inc, 1560 Broadway, New York, NY 10036, 1986. 373 pages, \$65.

MAGNETIC RESONANCE IMAGING AND SPECTROSCOPY—Edited by Fred A. Mettler, Jr, MD, MPH, Professor and Chairman, Department of Radiology, University of New Mexico Hospital, Albuquerque; Lawrence R. Muroff, MD, Clinical Professor of Radiology, University of South Florida College of Medicine, and Director, Division of Magnetic Resonance Imaging, Computed Tomography, and Nuclear Medicine, University Community Hospital, Tampa, and Madan V. Kulkarni, MD, Assistant Professor, Department of Radiology and Radiological Sciences, Vanderbilt University School of Medicine, and Clinical Director, Magnetic Resonance, Vanderbilt University Medical Center, Nashville, Tenn. Churchill Livingstone Inc, 1560 Broadway, New York, NY 10036, 1986. 309 pages, \$59.

MANAGEMENT OF ADVANCED MELANOMA—Volume 6 in Contemporary Issues in Clinical Oncology—Edited by Larry Nathanson, MD, Professor of Medicine, School of Medicine, State University of New York at Stony Brook, and Director, Oncology-Hematology Division, Winthrop University Hospital, Mineola, New York. Churchill Livingstone Inc, 1560 Broadway, New York, NY 10036, 1986. 258 pages, \$39.50.

MANAGING CHRONIC DISEASE—Edited by C. Stewart Rogers, MD, Associate Professor of Medicine, University of North Carolina School of Medicine, Chapel Hill, and Internal Medicine Teaching Program, The Moses H. Cone Memorial Hospital, Greensboro, North Carolina; Jack D. McCue, MD, Associate Professor of Medicine, Tufts University School of Medicine, Boston, and Vice-Chairman of Medicine and Chief of General Medicine and Geriatric Service, Baystate Medical Center, Springfield, Massachusetts, and Peter Gal, PharmD, Clinical Associate Professor, School of Pharmacy, University of North Carolina School of Medicine, Chapel Hill, and Director of Pharmacy Research and Education, Greensboro Area Health Education Center, The Moses H. Cone Memorial Hospital, Greensboro, North Carolina. Medical Economics Books, Oradell, NJ 07649, 1987. 421 pages, price not given (paperback).

MANUAL OF ANESTHESIA IN CANCER CARE—William S. Howland, MD, Chairman, Department of Critical Care, Memorial Sloan-Kettering Cancer Center, and Professor of Anesthesiology, Cornell University Medical College, New York; Sharon Marie Rooney, MD, Clinical Chief, Department of Anesthesiology, Memorial Sloan-Kettering Cancer Center, and Associate Professor of Clinical Anesthesiology, Cornell University Medical College, New York, and Paul L. Goldiner, MD, Professor and Chairman, Department of Anesthesia, Albert Einstein College of Medicine of Yeshiva University, Bronx, New York. Churchill Livingstone Inc, 1560 Broadway, New York, NY 10036, 1986. 312 pages, \$27 (paperback).

MANUAL OF COMMON OPHTHALMIC SURGICAL PROCEDURES—Edited by Charles D. Phelps, MD, Professor and Head, Department of Ophthalmology, and Hansjoerg E.J.W. Kolder, MD, PhD, Professor and Director, Cataract Service, Department of Ophthalmology, College of Medicine, University of Iowa Hospitals, Iowa City. Churchill Livingstone Inc, 1560 Broadway, New York, NY 10036, 1986. 183 pages, \$39.50 (paperback).

MODERN TECHNIQUES OF ION TRANSPORT—Volume 15 in Contemporary Issues in Nephrology—Edited by Barry M. Brenner, MD, Samuel A. Levine Professor of Medicine, Harvard Medical School, and Director, Renal Division and Laboratory of Kidney and Electrolyte Physiology, Brigham and Women's Hospital, Boston, and Jay H. Stein, MD, Professor and Chairman, Department of Medicine, University of Texas Health Science Center at San Antonio. Churchill Livingstone Inc, 1560 Broadway, New York, NY 10036, 1986. 325 pages, \$53.

OBSTETRICS—NORMAL AND PROBLEM PREGNANCIES—Edited by Steven G. Gabbe, MD, Professor of Obstetrics and Gynecology and Pediatrics, University of Pennsylvania School of Medicine, and Director, Jerrold R. Golding Division of Fetal Medicine, Hospital of the University of Pennsylvania, Philadelphia; Jennifer R. Niebyl, MD, Associate Professor of Gynecology and Obstetrics and Pediatrics and Director, Division of Maternal-Fetal Medicine, The Johns Hopkins Medical Institutions, Baltimore, Maryland, and Joe Leigh Simpson, MD, Professor and Chairman, Department of Obstetrics and Gynecology, University of Tennessee, Memphis, College of Medicine. Churchill Livingstone Inc, 1560 Broadway, New York, NY 10036, 1986. 1,092 pages, \$75.

OPEN-ANGLE GLAUCOMA—Volume 3 in Contemporary Issues in Ophthalmology—Edited by George W. Weinstein, MD, Professor and Jane McDermott Shott Chairman, Department of Ophthalmology, West Virginia University Medical Center, Morgantown. Churchill Livingstone Inc, 1560 Broadway, New York, NY 10036, 1986. 265 pages, \$48.

CONTINUING MEDICAL EDUCATION

(Continued from Page 510)

- 144: 144th Evacuation Hospital, PO Box 8000, Salt Lake City 84108. (801) 524-3924.
- OSS: Ogden Surgical Society, PO Box 9311, Ogden 84409.
- PCMC: Primary Children's Medical Center, 320 12th Ave, Salt Lake City 84103. (801) 363-1221.
- PVH: Pioneer Valley Hospital, 3460 S 4155 West, West Valley City 84120. (801) 968-9061.
- SMH: St Mark's Hospital, 1200 E 3900 South, Salt Lake City 84117. (801) 268-7111.
- UOS: Utah Ophthalmological Society, 540 E 500 South, Salt Lake City 84102. (801) 355-7477.
- USH: Utah State Hospital, PO Box 270, Provo 84603-0270. (801) 373-4400.
- UUMC: University of Utah Medical Center, 50 N Medical Dr, Salt Lake City 84132. (801) 581-2258.
- UVH: Utah Valley Hospital, 1034 N Fifth West, Provo 84601. (801) 373-7850.
- VAMC: Veterans Administration Medical Center, 500 Foothill Dr, Salt Lake City 84148. (801) 582-1565.
- VVMC: Valley View Medical Center, 595 S 75 East, Cedar City 84720. (801) 586-6587.

WASHINGTON

This listing of continuing medical education programs in Washington state is compiled by the Washington State Medical Association. To list Category 1 programs here please send information at least two months in advance to Continuing Medical Education, Washington State Medical Association, 2033 Sixth Avenue, Suite 900, Seattle, WA 98121; or phone (206) 441-WSMA.

Brochures and registration forms are available from the contact person or organization listed at the end of each course or in the list of course sponsors and contact information.

April 15—**Anorectal**. Seattle. Wed. Gould Auditorium, Northwest Hospital. Contact: (206) 364-0500, #1621.

April 15-16 —**Introduction to Industrial Hygiene**. Seattle. Wed-Thurs. NW Center for Occupational Health and Safety. Contact: U/W Dept of Environmental Health, SC-34, Seattle 98195. (206) 543-1069.

April 17—**Basic Monitoring Laboratory**. Seattle. Fri. NW Center for Occupational Health and Safety. Contact: U/W Dept of Environmental Health, SC-34, Seattle 98195. (206) 543-1069.

COURSE SPONSORS AND CONTACT INFORMATION

CME HARBORVIEW—Contact: Gayle Splater, Cytology Continuing Education, Dept. of Pathology, Harborview Medical Center, 325 Ninth Avenue, Seattle, WA 98104. (206) 223-5953.

CME PIERCE COUNTY—Contact: Mrs Maxine Bailey, Executive Director, College of Medical Education, 705 South Ninth, No. 203, Tacoma, WA 98405. (206) 627-7137.

U/W (UNIVERSITY OF WASHINGTON)—Contact: U/W School of Medicine, Div. of CME, SC-50, Seattle, WA 98195. (206) 543-1050.

WSMA—Washington State Medical Association, Continuing Medical Education, 2033 Sixth Ave, Suite 900, Seattle, WA 98121. (206) 441-9762.

VMMC (VIRGINIA MASON MEDICAL CENTER)—Contact: Linda Orgel, Division of Continuing Medical Education, Virginia Mason Medical Center, PO Box 900, Seattle, WA 98111. (206) 223-6898.

April 24-25—**Benton-Franklin County Medical Society's 3rd Annual CME Seminar**. Richland. Fri-Sat. Holiday Inn. Contact: A. K. Sen, MD, (509) 783-4186.

April 25—**Mason Clinic Day**. Seattle. Sat. Virginia Mason Medical Center. Contact: VMMC.

April 30—**Soft Tissue Sarcomas**. Seattle. Thurs. Swedish Hospital Medical Center. Contact: Office of Medical Education, (206) 386-2265.

May 1—**Head and Neck Cancer**. Seattle. Fri. Swedish Hospital Medical Center. Contact: Office of Medical Education, (206) 386-2265.

May 1—**Topics in Pulmonary Medicine: Obstructive Airflow Disease Treatment**. Seattle. Fri. Virginia Mason Medical Center. Contact: VMMC.

May 8—**Current Issues in Asbestos Control**. Seattle. Fri. NW Center for Occupational Health and Safety. Contact: U/W Dept of Environmental Health, SC-34, Seattle 98195. (206) 543-1069.

May 13—**Neonatal**. Seattle. Wed. Gould Auditorium, Northwest Hospital. Contact: (206) 364-0500, #1621.

May 14-15—**Clinical Microbiology**. Seattle. Thurs-Fri. Contact: U/W.

May 20—**Management of Benign and Malignant Breast Disease**. Seattle. Wed. U/W Health Sciences. Contact: U/W.

May 27—**Dermatology**. Seattle. Wed. Gould Auditorium, Northwest Hospital. Contact: (206) 364-0500, #1621.

May 28-29—**Workers Compensation Update**. Seattle. Thurs-Fri. NW Center for Occupational Health and Safety. Contact U/W.

June 3—**Flexible Sigmoidoscopy III or IV**. Seattle. Wed. Gould Auditorium, Northwest Hospital. Contact: (206) 364-0500, #1621.

June 17-19—**Family Violence**. Seattle. Wed-Fri. Kane Hall, U/W. Contact: U/W.

June 25-26—**Infectious Diseases**. Seattle. Thurs-Fri. Holiday Inn Crowne Plaza. Contact: (206) 364-0500, #1621.

July 19-23—**Reducing Risks From Environmental Chemicals Through Biotechnology**. Seattle. Sun-Thurs. NW Center for Occupational Health and Safety. Contact: U/W.

July 24-26—**WSSA: Seafair IX Regional Anesthesia**. Seattle. Fri-Sun. Virginia Mason Medical Center. Contact: VMMC.

July 27-31—**The Pathology of Lung Cancer**. Seattle. Mon-Fri. Virginia Mason Medical Center. Contact: VMMC.

WYOMING

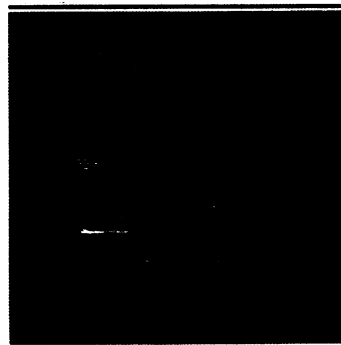
June 25-29—**Wyoming Medical Society Annual Meeting**. Jackson Lake Lodge, Moran. Thurs-Mon. Contact: WMS, PO Drawer 4009, Cheyenne 82003-4009. (307) 635-2424.

June 28-July 2—**Update on General Pediatrics**. University of Nebraska College of Medicine at Jackson Hole Racquet Club, Jackson. Sun-Thurs. Contact: Brenda Ram, Center for Continuing Education, Univ of Nebraska Medical Center, 42nd and Dewey Ave, Omaha, NE 68105. (402) 559-4152.

July 5-9—**Sports Medicine Update 1987**. University of Nebraska College of Medicine at Jackson Hole Racquet Club, Jackson. Sun-Thurs. Contact: Brenda Ram, Center for Continuing Education, Univ of Nebraska Medical Center, 42nd and Dewey Ave, Omaha, NE 68105. (402) 559-4152. ◆

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Arizona Medical Association, Inc—810 W Bethany Home Rd, Phoenix 85013. (602) 246-8901. Annual Meeting: June 4-6, 1987, Pointe South Mountain, Phoenix.

California Medical Association—PO Box 7690, San Francisco 94120-7690. (415) 863-5522. Annual Meeting: March 4-9, 1988, Bally's Grand Hotel, Reno.

Colorado Medical Society—PO Box 17550, Denver 80217-0550. (303) 779-5455. Annual Meeting: September 9-12, 1987, Beaver Run, Breckenridge.

Hawaii Medical Association—320 Ward Ave, Suite 200, Honolulu 96814. (808) 536-7702. Annual Meeting: October 10-12, 1987, Kauai Surf, Kauai.

Idaho Medical Association—305 W Jefferson, PO Box 2668, Boise 83701. (208) 344-7888. Annual Meeting: July 27-August 2, 1987, Coeur d'Alene.

Montana Medical Association—2012 11th Ave, Suite 12, Helena 59601. (406) 443-4000. Interim Meeting: April 3-4, 1987, Colonial Inn, Helena.

Nevada State Medical Association—3660 Baker Lane, Reno 89502. (702) 825-6788. Annual Meeting: April 30-May 3, 1987, Ormsby House, Carson City.

New Mexico Medical Society—303 San Mateo NE, Suite 204, Albuquerque 87108. (505) 266-7868. Annual Meeting: May 6-8, 1987, Clarion Four Seasons, Albuquerque.

Oregon Medical Association—5210 SW Corbett Ave, Portland 97201. (503) 226-1555. Annual Meeting: (House of Delegates only): April 3-4, 1987, Salishan Lodge, Lincoln City.

Utah State Medical Association—540 E Fifth South, Salt Lake City 84102. (801) 355-7477. Annual Meeting: September 9-11, 1987, Westin Hotel Utah, Salt Lake City.

Washington State Medical Association—900 United Airlines Bldg, 2033 6th Ave, Seattle 98121. (206) 441-WSMA. Annual Meeting: September 17-20, 1987, Sheraton, Tacoma.

Wyoming Medical Society—PO Drawer 4009, Cheyenne 82003-4009. (307) 635-2424. Annual Meeting: June 25-29, 1987, Jackson Lake Lodge, Moran.

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ABBOTT LABORATORIES

Depakote 511, 512

AUDIO DIGEST 399

CIBA PHARMACEUTICALS

Transderm-Nitro 395, 396

CLASSIFIED ADVERTISING 525, 526, 528, 530

COOPERATIVE OF AMERICAN PHYSICIANS 519

ELI LILLY & COMPANY

Ceclor 410

GLAXO

Trandate 522, 523, 524

Zantac 421, 422

HOFFMANN-LA ROCHE LABORATORIES

Dalmane 2nd cover, 393, 394

Medication Education 517, 518

Rocephin 3rd and 4th covers

MEAD JOHNSON & COMPANY

Vi-Flor 531, 532

NEW YORK STATE JOURNAL OF MEDICINE 527

PACIFIC PHYSICIAN SERVICES 513

PHYSICIANS PRACTICE MANAGEMENT 425

POSTGRADUATE MEDICINE 396

PRINCETON PHARMACEUTICAL PRODUCTS

Corgard 411, 412, 413, 414, 507, 508

A. H. ROBINS COMPANY

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INSURANCE EXCHANGE 415

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Capoten 406, 407, 408

SYZYGY COMPUTER SYSTEMS, INC. 417

UNITED STATES AIR FORCE 400

UNIVERSITY MICROFILM 394

UPJOHN COMPANY

Medrol 397

Motrin 514, 515, 516

Xanax 426, 427, 428

THE WESTERN JOURNAL OF MEDICINE

Subscription Information 423, 529

Special Issues Information 521

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